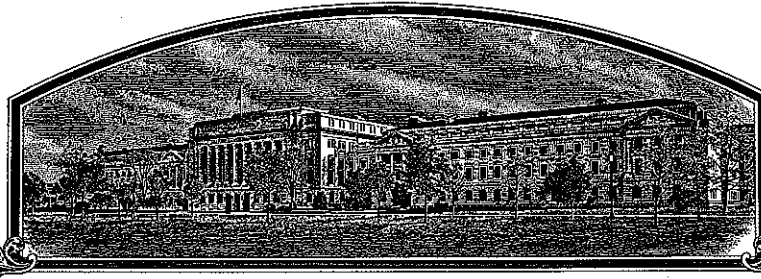


No.

200400290



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

*Barenbrug USA, Inc.*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TUFTED HAIRGRASS

*'Barcampsia'*

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixteenth day of May, in the year two thousand and eight.*

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service


*Edward T. Schaffer*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER <b>Barenbrug USA, Inc.</b>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME BAR DC 710-2	3. VARIETY NAME Barcampsia
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) <b>33477 Hwy 99E Tangent, OR 97389</b>		5. TELEPHONE (include area code) (541) 926-5801	FOR OFFICIAL USE ONLY PVPO NUMBER <b>200400290</b> FILING DATE <b>August 9, 2004</b>
		6. FAX (include area code) (541) 926-9435	
7. IF THE OWNER NAMED IS NOT A "PERSON". GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation	8. IF INCORPORATED, GIVE STATE OF INCORPORATION OR	9. DATE OF INCORPORATION January 21, 1995	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) <b>Joseph K. Wipff, Ph.D. West Coast Research Station Barenbrug USA, Inc. 36030 Tennessee Rd. Albany, OR 97322</b>			F E E S R E C E I V E D FILING AND EXAMINATION FEES: \$ <b>3652</b> DATE <b>8/9/2004</b> CERTIFICATION FEE: \$ <b>768</b> DATE <b>3/18/2008</b>
11. TELEPHONE (Include area code) (541) 924-0338	12. FAX (Include area code) (541) 791-9590	13. E-MAIL jwipff@barusa.com	
14. CROP KIND (Common Name) Tufted Hairgrass	16. FAMILY NAME (Botanical) Poaceae	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP Deschampsia cespitosa (L.) Beauv.	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 23)	
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.  The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.  Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.	
SIGNATURE OF OWNER 		SIGNATURE OF OWNER 	
NAME (Please print or type) Joseph K. Wipff, Ph.D.		NAME (Please print or type) Devesh Singh	
CAPACITY OR TITLE Turfgrass Breeder	DATE 07/16/2004	CAPACITY OR TITLE Director of Research	DATE 07/16/2004

(See reverse for instructions and information collection burden statement)

**GENERAL:** To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

**Plant Variety Protection Office**

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvpindex.htm>

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 <http://www.ams.usda.gov/lsg/seed.htm>.

**ITEM**

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
  - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

**22. CONTINUED FROM FRONT** (Please provide a statement as to the limitation and sequence of generations that may be certified.)

**23. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

USA: 14 January 2004 Sale for turf use. Germany: 2003 The Netherlands: Fall 2001 First commercial sales to seed distributors.

**24. CONTINUED FROM FRONT** (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

The Netherlands - 1999 - # SME-2 Germany - 13 December 2001 - # RSL-6 Estonia - 2001 - # N/A Slovak Republic - 2002 - # N/A

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

**Exhibit A.****Origin and Breeding History****'BARCAMPsia'**

(Dc Tj 10-2, BAR DC 710-2)

**Tufted Hairgrass**[*Deschampsia cespitosa* (L.) P. Beauvois]

'Barcampsia' was developed from an ecotype collected from a heavily grazed pasture in Bratislava, Czech Republic.

Breeding method: An ecotype selection from a heavily grazed pasture in Bratislava, Czech Republic.

Selection criteria: turf quality, wear tolerance, uniformity and disease resistance.

**1991:** An ecotype collection of *Deschampsia* was made in a heavily grazed pasture in Bratislava, Czech Republic along with collections of *Lolium perenne*, *Dactylis glomerata*, *Poa pratensis* and *P. trivialis*.

**1992:** The collection was cloned into three plants and planted into an isolated space plant nursery along with 670 *Poa pratensis* ecotype collections.

**1993:** Seed was harvested from the *Deschampsia* collection and designated Dc Tj 10-2.

**1994:** Seed was used to establish a replicated (3 replications) turf trial in Wolfheze, The Netherlands. A wear machine was used on the turf trial to simulate traffic and the trial was mowed at two different mowing heights (10 and 25 mm). Dc Tj 10-2 was selected for its excellent wear tolerance, good turf quality at both mowing heights and disease resistance.

**1995:** A nursery of 1,000 spaced plants was established at Barenbrug research farm in Wolfheze, The Netherlands.

**1996:** Fifteen (1.5 %) plants were removed based on color, leaf texture, plant height and heading from the 1,000 plant space plant nursery prior anthesis and 985 were harvested as breeder seed, and designated BAR DC 710-2.

'Barcampsia' has been observed for three generations of reproduction and during the seed increase period, and is a stable and uniform variety. Less than 3% variants have been observed in the reproduction or multiplication from Breeder seed to foundation to certified seed. These variants are commercially acceptable. Breeder seed is maintained by Barenbrug USA, Inc.

Ecotype Selection = collection (in this case from a heavily grazed pasture).

The >3% variants would be slightly taller only.

**EXHIBIT B.****Novelty Statement****'BARCAMPsia' Tufted Hairgrass**

'*Barcampsia*' is most similar to the variety '*Shade Champ*'. However, close comparisons demonstrate the following differences:

1. 'Barcampsia' has a heading date that is at least 33 days earlier than 'Shade Champ'. See Tables 1 and 2.
2. 'Barcampsia' has an anthesis date that is at least 26 days earlier than 'Shade Champ'. See Tables 1 and 2.
3. 'Barcampsia' has a lemma awn length longer than 'Shade Champ' (2 mm vs. 1 mm, respectively). See Tables 1 and 2.

Table 1. 2005 mean morphological measurements for entries in Turfited Hairgrass space plant nursery planted fall of 2004 at the Boardman Research Farm, Barenbrug USA, Boardman, OR. The soil is sandy.

RAO 2/4/08

Entry	* HEADING DAY JULIAN	* ANTHESIS DAY JULIAN	Awn Length (mm)
Shade Champ	149.1 a	161.9 a	1 b
Barcampsia	116.1 b	136 b	2 a
LSD (P=.05)	7.62	29.36	0
CV	1.64	1.9	0
Grand Mean	132.6	148.97	1.5
n	60	60	30
Replicate F	1.257	4.997	0
Replicate Prob(F)	0.443	0.3016	1
Treatment F	348.779	125.928	0
Treatment Prob(F)	0.0029	0.0566	1

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Table 2. 2005 mean morphological measurements for entries in Turfited Hairgrass space plant nursery planted fall of 2004 at the West Coast Research Center, Barenbrug USA, Inc., 36030 Tennessee Rd, Albany, OR. The soil is clay loam.

RAO 2/4/08

Entry	* HEADING DAY JULIAN	* ANTHESIS DAY JULIAN	Awn Length (mm)
Shade Champ	157.8 a	174.6 a	1 b
Barcampsia	118.2 b	144.2 b	2 a
LSD (P=.05)	3.56	2.18	0
CV	0.74	0.39	0
Grand Mean	138	159.41	1.5
n	60	60	30
Replicate F	4.553	2.17	0
Replicate Prob(F)	0.1801	0.3154	1
Treatment F	2287.982	3588.473	0
Treatment Prob(F)	0.0004	0.0003	1

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

\* The heading date for space plants is recorded once the first three inflorescences are exerted from the sheath.

\*\* The anthesis date is recorded once 50% of a plant is in anthesis.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY PROGRAM  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT C  
(HAIRGRASS)

OBJECTIVE DESCRIPTION OF VARIETY  
HAIRGRASS  
(*Deschampsia* spp.)

NAME OF APPLICANT(S) <b>Barenbrug USA, Inc.</b>	TEMPORARY DESIGNATION <b>BAR DC 710-2</b>	VARIETY NAME <b>Barcampsia</b>
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) 33477 Hwy 99E Tangent, OR 97389		FOR OFFICIAL USE ONLY PVPO NUMBER <b>#200400290</b>

Select the number which characterizes the variety in the features described below. For measured characteristics use leading zeros as necessary in order to fill all blanks (e.g. 089). Those characteristics marked with a star \* are preferred to be recorded. Any others should be recorded to help establish novelty or uniqueness. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate the system used:

Describe location of test area, conditions, and number of Plants used: Albany, OR and Boardman, OR; Research Farms ca. 240 miles apart. Sixty space plants measured. See Table 3.

1. SPECIES:

1 = *Deschampsia cespitosa*      2 = Others (Please Specify):

Chromosome Number

2. ADAPTATION: (0 = Not Tested, 1 = Not Adapted, 2 = Adapted, 3 = Well Adapted)

Northeast       Transitional Zone       Southeast       North Central  
 Pacific N.W.       Intermountain       Southwest (CA, AZ)       Other (Please Specify):

3. MATURITY (At first anthesis): Give test area near Boardman, Oregon.

     1 = Very Early      2 = Early      3 = Medium Early  
4 = Medium late      5 = Late  
6 = Very Late

Date of First Anthesis: 16 May

Number of days earlier than  } 1 = Shade Champ  
Maturity same as   
  Number of days later than  }

## 4. PLANT HEIGHT (At anthesis -Average of longest shoot from soil surface to top of panicle):

6	7	0
---	---	---

 cm Height

1	3
---	---

 cm Shorter than

Height same as

--	--

 cm Taller than

1
---

1 = Shade Champ

--

--

## 5. HEIGHT TO FLAG LEAF (At anthesis-Average of longest shoot from soil surface to the collar of the flag leaf):

3	0	0
---	---	---

 cm Height

9	0
---	---

 cm Shorter than

Height same as

--	--

 cm Taller than

1
---

1 = Shade Champ

--

--

3	7	0
---	---	---

 cm Length from flag leaf collar to tip of panicle

## 6. LEAF BLADE:

2
---

Green color:

1 = Light green

3 = Moderately dark green

2 = Medium green

4 = Very dk. green

1	1	0
---	---	---

mm Length [second uppermost (tiller) leaf]

2	0
---	---

mm Shorter than

1 =

1
---

Shade Champ

Length same as

--	--

mm Longer than

--

--

3	0	0
---	---	---

mm Width [second uppermost (tiller) leaf]

--	--

mm Narrower than

--

1 = Shade Champ

Width same as

--	--

mm Wider than

1
---

--

2
---

Position of flag leaf (angle to stem): 1 = Appressed 2 = Open angle, yet stiff 3 = Nodding



1	3.	0
---	----	---

 cm Flag Leaf Length

3.	0	0
----	---	---

 mm Flag Leaf Width

## 7. TILLER LEAF SHEATH: (Second uppermost sheath)

9	0.	0
---	----	---

 mm sheath length

6	0
---	---

 mm Shorter than

1
---

1 = Shade Champ

Length same as

--

--	--

 mm Longer than

--

1
---

Surface Roughness (to touch): 1 = Smooth 2 = Rough

3.	3	0
----	---	---

 mm Ligule length

1
---

Hairs on ligule: 1 = Absent 2 = Present

## FLAG LEAF SHEATH:

2	0	6
---	---	---

 mm Sheath Length

3.	1	0
----	---	---

 mm Ligule Length

## 8. PANICLE (Mature Plant):

2	3	0
---	---	---

 mm Length (Lowest branch whorl to top, for 10 plants)

6	0.	0
---	----	---

 mm Shorter than

1
---

1 = Shade Champ

Panicle same as

--

--	--	--

 mm Longer than

--

2
---

 Panicle branches: 1 = Smooth 2 = Scabrous

1
---

 Branches Attitude (Lowest whorl): 1 = Drooping 2 = Horizontal 3 = Ascending

4.7
-----

 Number of main branches in lowest whorl:

1
---

 Panicle habit: 1 = Nodding 2 = Upright

1
---

 Panicle type: 1 = Open 2 = Intermediate 3 = Contracted

1,2
-----

 Anther color (anthesis): 1 = Purple 2 = Yellow

## 9. SPIKELELET

mm Length (from 10 spikelets)

mm Shorter than

same as

mm Longer than

1 = Shade Champ

## LEMMA

mm Length

mm Shorter than

same as

mm Longer than

1 = Shade Champ

awns: 1 = straight 2 = geniculate

awns: 1 = longer than spikelet 2 = shorter than spikelet

## 10. SEED: (Floret-not dehulled)

mm Width (average of 10)    mm Length

Milligrams per 10,000 seed

Milligrams less than

Weight same as

Milligrams more than

1 = Shade Champ

## 11. ENVIRONMENTAL RESISTANCE:

(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

Cool Temperature  
(Winter color)

Cold (injury)

Heat

Drought

Shade

Low Fertility

Acid Soil  
( < pH 5.5)

Alkalinity  
(pH > 7.5)

Salinity

Soil Compaction

Poor Drainage

Air Pollution

Other (Please Specify):

## 12. DISEASE RESISTANCE:

(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

<input type="text" value="0"/> Melting-Out <i>Drechslera poae</i> ( <i>Helminthosporium vagans</i> )	<input type="text" value="0"/> Sclerotinia <i>S. borealis</i>
<input type="text" value="0"/> Helminthosporium Leaf Spot <i>Bipolaris sorokiniana</i>	<input type="text" value="0"/> Stem Rust <i>Puccinia graminis</i>
<input type="text" value="0"/> Brown Patch <i>Rhizoctonia solani</i>	<input type="text" value="0"/> Stripe Rust <i>P. striiformis</i>
<input type="text" value="0"/> Powdery Mildew <i>Erysiphe graminis</i>	<input type="text" value="0"/> Leaf Rust <i>P. poae-nemoralis</i>
<input type="text" value="0"/> Stripe Smut <i>Ustilago striiformis</i>	<input type="text" value="0"/> Orange Stripe Rust <i>P. poarum</i>
<input type="text" value="0"/> Flag Smut <i>Urocystis agropyri</i>	<input type="text" value="0"/> Pythium Blight <i>Pythium</i> spp.
<input type="text" value="0"/> Pink Snow Mold <i>Fusarium nivale</i>	<input type="text" value="0"/> Red Thread <i>Corticium fujiciforme</i>
<input type="text" value="0"/> Ergot <i>Claviceps purpurea</i>	<input type="text" value="0"/> Take All <i>Gaeumannomyces graminis</i>
<input type="text" value="0"/> Fusarium Blight <i>Fusarium roseum</i> , <i>F. tricinctum</i>	<input type="text"/> Other (Please Specify):
<input type="text" value="0"/> Typhula Blight <i>Typhula</i> spp.	<input type="text"/> Other (Please Specify):
<input type="text" value="0"/> Dollar Spot <i>Sclerotinia homoeocarpa</i>	

## 13. INSECTS, NEMATODES, RESISTANCE:

(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

<input type="text" value="0"/> Chinch Bug <i>Blissus</i> spp. (give species: )
<input type="text" value="0"/> Sod Webworm <i>Crambus</i> spp. (give species:)
<input type="text" value="1"/> Bluegrass Billbug <i>Sphenophorus parvulus</i>
<input type="text" value="0"/> White Grub: Japanese Beetle, Chafers (give species )
<input type="text" value="0"/> Greenbug Aphid <i>Schizaphis graminum</i>
<input type="text"/> Other (Please Specify):
<input type="text"/> Other (Please Specify):

14. Give variety or varieties that most closely resemble the application variety. For the following characteristics indicate Degree of Resemblance by placing in the column marked D.R., one of the following numbers: 1 = Application variety is less than comparison variety; 2 = Same as; 3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Maturity-heading	'Shade Champ'	1	Leaf Width	'Shade Champ'	1
Height	'Shade Champ'	1	Leaf Color Spring	'Shade Champ'	2
Seed Size	'Shade Champ'	2	Leaf Color Summer	'Shade Champ'	2
Seed Weight	'Shade Champ'	3	Leaf Color Winter	'Shade Champ'	2
Cold Injury	'Shade Champ'	2	Drought	'Shade Champ'	2
Heat	'Shade Champ'	2	Disease**	'Shade Champ'	-----
Shade	'Shade Champ'	2			

\*\*Specify each disease evaluated.

## 15. ADDITIONAL DESCRIPTION

1200-66



Table 3. 2005 mean morphological measurements for entries in Turfed Hairgrass space plant nursery planted fall of 2004 at the Boardman Research Farm, Barenbrug USA, Boardman, OR. The soil is sandy.

Entry	HEADING	ANTHESIS	Plant	Flag leaf	Tiller Leaf	Tiller Leaf	Tiller Leaf	Flag Leaf	Flag Leaf	Panicle	Flag Leaf	Spikelet	Lemma	Awn	Seed	Seed														
	DAY	DAY	Height	Height	Sheath Lnth	Length	Width	Length	Width	Length	Sheath Lnth	Length	Length	Length	Width	Length														
	JULIAN	JULIAN	cm	cm	cm	cm	mm	cm	mm	cm	cm	mm	mm	mm	mm	mm														
Shade Champ	149.1	a	80.1	a	39.3	a	14.6	a	12.7	a	3.1	a	12.8	a	3	a	29.2	a	26.4	a	3.7	a	2.5	a	1	b	0.5	a	1.6	a
Barcampsia	116.1	b	66.7	b	29.9	b	8.6	b	10.7	a	3.2	a	10.4	a	2.8	a	23.3	b	20.6	b	3.4	a	2.4	a	2	a	0.6	a	1.5	a
LSD (P=05)	7.62		7.61		2.18		5.29		4.05		1.11		9.41		0.95		5.8		4.91		0.76		0.44		0		0.89		0.76	
CV	1.64		2.95		1.79		12.95		9.85		10		23.06		9.28		5.28		5.95		1.69		1.44		0		13.21		3.8	
Grand Mean	132.6		73.38		34.59		11.62		11.7		3.17		11.61		2.91		26.26		23.48		3.56		2.43		1.5		0.53		1.58	
n	60		60		60		60		60		60		60		60		60		30											
Replicate F	1.257		1.129		23.773		1.249		0.881		0.645		0.457		0.242		1.273		2.694		5.444		9		0		0.02		2.25	
Replicate Prob(F)	0.443		0.4697		0.0404		0.4447		0.5316		0.608		0.6866		0.805		0.44		0.2707		0.2578		0.2048		1		0.9097		0.3743	
Treatment F	348.779		57.452		340.529		23.539		4.813		0.227		1.226		1.025		18.95		25.435		23.361		19.612		0		0.326		1.361	
Treatment Prob(F)	0.0029		0.017		0.0029		0.04		0.1595		0.6809		0.3835		0.4179		0.0469		0.0371		0.1299		0.1414		1		0.6695		0.4511	

Means followed by same letter do not significantly differ (P=05, Duncan's New MRT)

#200400290

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**  
**STATEMENT OF THE BASIS OF OWNERSHIP**

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)  <b>Barenbrug USA, Inc.</b>	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER  BAR DC 710-2	3. VARIETY NAME  Barcampsia
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)  33477 Hwy 99E Tangent, OR 97389	5. TELEPHONE (Include area code)  (541) 926-5801	6. FAX (Include area code)  (541) 926-9435
7. PVPO NUMBER  <b>200400290</b>		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain.



YES



NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country.



YES



NO

10. Is the applicant the original owner?



YES



NO

If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?



YES



NO

If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?



YES



NO

If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

**PLEASE NOTE:**

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.